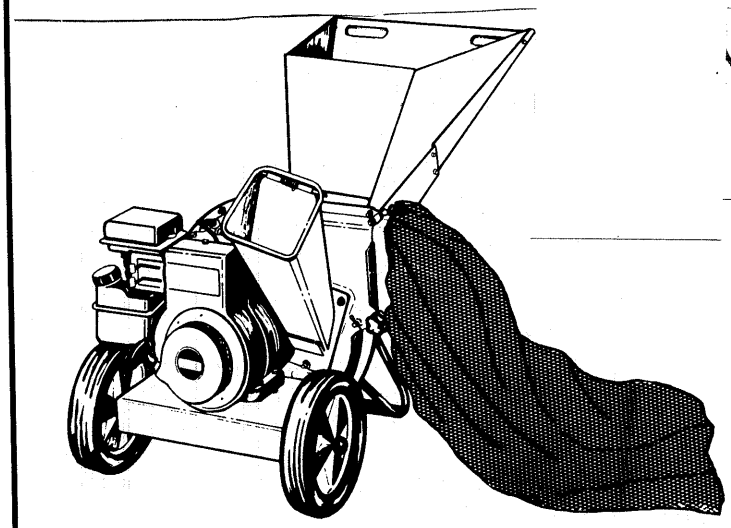
$1.00

OWNER'S GUIDE

• ASSEMBLY • OPERATION • MAINTENANCE • PARTS •



5 and 8 H.P.
SHREDDERS

Model Numbers
242-645-000
242-648-000
242A645-000
242A648-000

IMPORTANT!

Record the **Model No.** and **Mfg. Code** which appear on your unit in the space below. You **must** have these numbers, along with the date of purchase, in order to receive warranty or service.

MEETS ANSI SAFETY STANDARDS	
MODEL NO.	MFG. CODE

Important:
Read Safety Rules and Instructions Carefully

Made in AMERICA

WARNING: This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest engine authorized service dealer or contact the service department, P.O. Box 360900, Cleveland, Ohio 44136.

FORM NO. 770-7827G

SAFETY RULES

WARNING: TO REDUCE THE POTENTIAL FOR ANY INJURY, COMPLY WITH THE FOLLOWING SAFETY INSTRUCTIONS. FAILURE TO COMPLY WITH THE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY.

TRAINING

- Read this owner's manual carefully in its entirety before attempting to assemble or operate this machine. Be completely familiar with the controls and the proper use of this machine before operating it. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
- Children must never be allowed to operate this equipment.
- No one should operate this unit while intoxicated or while taking medication that impairs the senses or reactions.
- This equipment should never be operated in the vicinity of children, pets or other persons.
- Never run your machine in an enclosed area as the exhaust from the engine contains carbon monoxide, which is an odorless, tasteless and deadly poisonous gas.
- Never place your hands or any part of your body or clothing inside the feeding chamber, discharge chute, or near any moving part while the machine or engine is running.
- If it is necessary for any reason to inspect or repair the feeding chamber or any part of the machine where a moving part can come in contact with your body or clothing, stop the machine, allow it to cool, disconnect the spark plug wire from the spark plug and move it away from the spark plug before attempting such inspection or repair.

PREPARATION

- Wear safety glasses provided with your unit while operating the shredder to prevent injury from any material which may be ejected out of the openings.
- Wear proper apparel. Avoid wearing loose fitting clothing. Wear gloves when handling material.
- HANDLE GASOLINE WITH CARE as it is an extremely flammable fuel.
- Check the fuel before starting the engine. Do not fill the fuel tank indoors, while the engine is running, or while the engine is still hot. Turn the unit off and let the engine cool before refueling.
- Fuel your shredder in a clean area. Do not smoke while refueling.
- Fuel tank cap must be secure at all times except during refueling.
- Avoid spilling gasoline or oil. Wipe the unit clean of any spilled fuel or oil.
- Store fuel and oil in approved containers, away from heat or open flame, and out of reach of children.
- This machine should be operated only upon a level surface.
- Assure that all screws, nuts and bolts and other fasteners are properly secured.

OPERATION

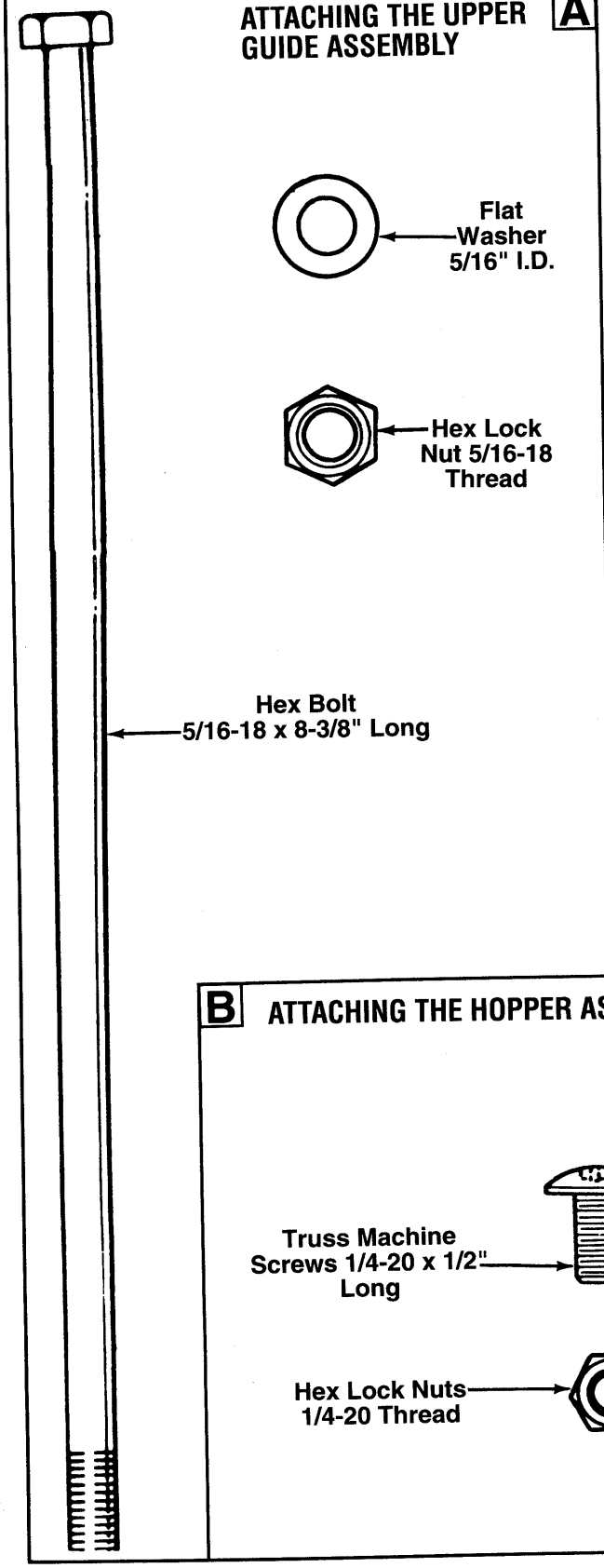
- When feeding shreddable material into this equipment, be extremely careful that pieces of metal, rocks, bottles, cans or other foreign objects are not included. Personal injury or damage to the machine could result.
- If the cutting mechanism strikes any foreign object or if your machine should start making an unusual noise or vibration, immediately stop the engine, disconnect the spark plug wire from the spark plug and move it away from the spark plug. Allow the machine to stop and take the following steps:
  Inspect for damage.
  Replace or repair any damaged parts.
  Check for any loose parts and tighten to assure continued safe operation.
- The engine must be kept clean of debris and other accumulations.
- Do not allow an accumulation of processed material to build up in the discharge area as this will prevent proper discharge and can result in kick-back from feed opening.
- Never place your hands or any other part of your body or clothing inside the feeding chamber, discharge chute or near any moving part while the engine is running.
- Keep all guards and deflectors in place and in good working condition to assure continued safe operation.
- Always stand clear of the discharge area when operating this machine.
- Keep your face and body back from the feed opening to avoid accidental bounce back of any material.
- Do not over-reach. Keep proper balance and footing at all times.
- The engine governor settings on your machine must not be altered, changed, or tampered with. The governor controls the maximum safe operating speeds and protects the engine and all moving parts from damage caused by overspeed.
- Do not transport machine while engine is running.
- Do not operate engine if air cleaner or cover directly over carburetor air intake is removed, except for adjustment. Removal of such parts could create a fire hazard.

MAINTENANCE AND STORAGE

- When this equipment is stopped for servicing, inspection, storage or to change an accessory, make sure the spark plug wire is disconnected from the spark plug and moved away from the spark plug. The machine should be allowed to cool down before making such inspection, adjustments, service, etc. Maintain your machine with care and keep it clean for the best and continued safe operation.
- Do not use flammable solutions to clean the air filter.
- When not in use, your machine should be stored out of the reach of children. Keep where gasoline fumes will not reach an open flame or spark. For long periods of storage, refer to the "Off-Season Storage" section of this manual.

ASSEMBLY INSTRUCTIONS

A ATTACHING THE UPPER GUIDE ASSEMBLY



IMPORTANT: This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see separate engine manual for proper fuel and engine oil recommendations.

NOTE: To determine right and left hand sides of your shredder, stand behind and face the hopper (engine is at the front of the unit).

Your shredder has been completely assembled at the factory, except for the hopper assembly (hopper hood and upper guide extension have been sub-assembled), upper guide assembly, chute deflector and the catcher bag. The hardware pack and a pair of safety glasses are also included in the carton.

The hardware pack contains the parts shown in figure 1 (shown full size).

TO REMOVE SHREDDER FROM CARTON

Cut the corners of the carton. Remove all packing inserts. Roll shredder out of carton. Make certain all parts and literature have been removed before the carton is discarded.

TOOLS REQUIRED FOR ASSEMBLY

(1) Phillips Screwdriver
(2) 1/2" Wrenches (one must be a socket wrench)
(2) 7/16" Wrenches or Adjustable Wrenches

B ATTACHING THE HOPPER ASSEMBLY

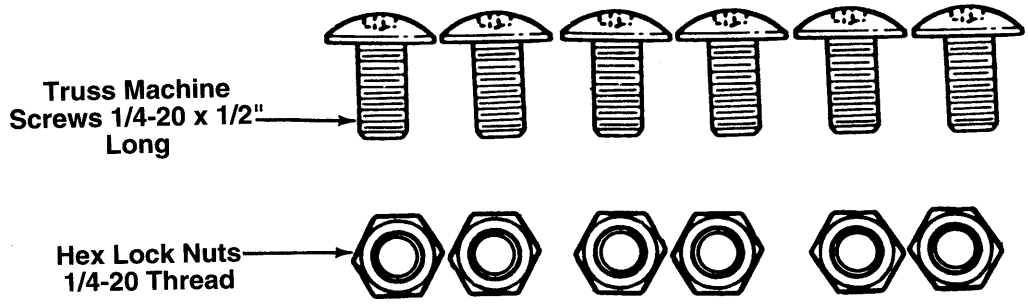


FIGURE 1.

WARNING: Make certain the spark plug wire is disconnected and moved away from the spark plug before assembling the shredder.

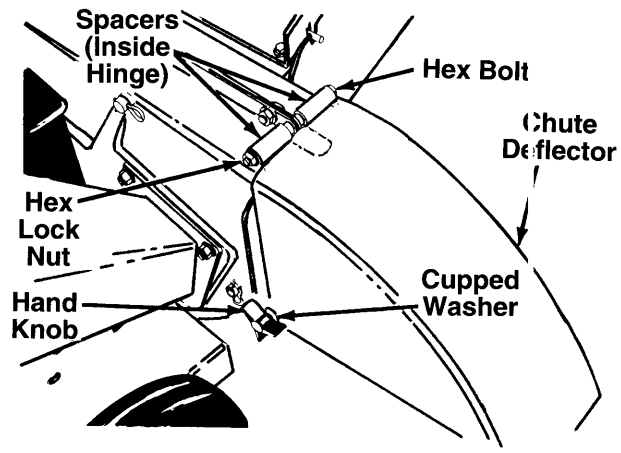


FIGURE 2.

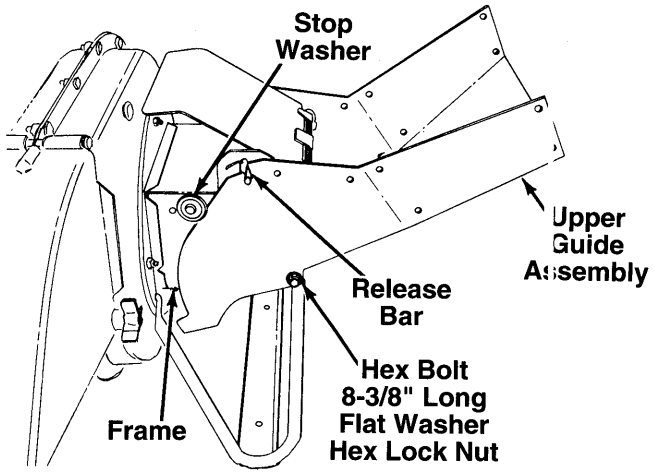


FIGURE 3.

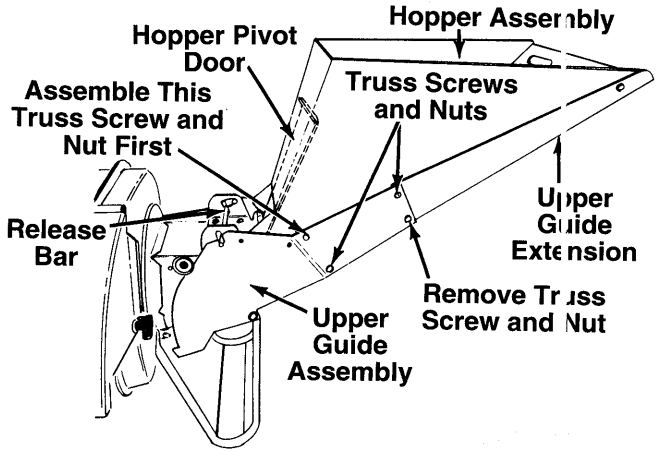


FIGURE 4.

ATTACHING THE CHUTE DEFLECTOR (See Figure 2)

1. Remove the hand knobs and cupped washers from each side of the discharge opening on the left side of the shredder.
2. Remove the hex lock nut, two spacers and hex bolt from inside the hinge on the chute deflector. Do not remove one spacer from the hex bolt.
3. Place the chute deflector in position on the discharge opening on the left side of the shredder Insert hex bolt and spacer through hinge on chute deflector and housing (spacer fits inside of hinge).
4. Place the second spacer over the hex bolt, inside the other part of the hinge. Secure with hex lock nut. Tighten securely.
5. Secure both sides of the chute deflector to the housing using the hand knobs and cupped washers (cupped side of washers go against the chute deflector).

WARNING: Do not operate this shredder unless the chute deflector has been properly installed and is secured with the hand knobs.

ATTACHING THE UPPER GUIDE ASSEMBLY (Hardware A)

Place upper guide assembly in position on frame, making certain edges of the upper guide assembly are underneath stop washers, and the release bar is in the slots. See figure 3. Insert hex bolt 8-3/8" long through upper guide assembly and frame. Secure with flat washer 5/16" I.D. and hex lock nut.

NOTE: *Make certain upper guide assembly can pivot by pulling up on release bar and lowering upper guide assembly. If necessary, loosen hex lock nut a turn or two. Put the upper guide assembly back into the raised position.*

ATTACHING THE HOPPER ASSEMBLY (Hardware B)

Your shredder has been shipped with the upper guide extension attached to the hopper assembly. See figure 4. Attach the hopper assembly to the upper guide assembly as follows. Be certain to place heads of all truss machine screws **inside** of hopper assembly.

1. Remove one truss machine screw and nut from each side of hopper assembly as shown in figure 4. **Push hopper pivot door down inside lower part of hopper** as you place hopper assembly (both pieces) **inside** upper guide assembly. Replace truss screws and nuts just removed, using the front upper hole in assembly as shown in figure 4, one on each side. Tighten finger tight only.
2. Place the six truss machine screws and nuts found in hardware pack in the remaining holes of hopper assembly, alternating sides of the unit and tightening finger tight only.
3. After assembling all eight screws, tighten them securely.

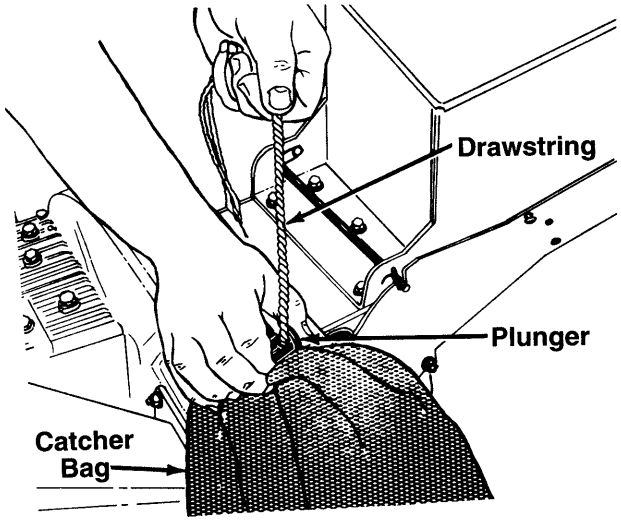


FIGURE 5.

ATTACHING THE CATCHER BAG

Your shredder is equipped with a catcher bag to catch the shredded material.

To attach the bag, place the opening of the bag over the chute deflector so it completely covers the chute opening. Depress the plunger on the drawstring, pull on the drawstring until the bag is tight around the chute opening. Release plunger to lock it into position. ←See figure 5.

OPERATION

KNOW YOUR SHREDDER

READ THIS OWNER'S MANUAL AND SAFETY RULES BEFORE OPERATING YOUR SHREDDER. Compare the illustrations with your shredder to familiarize yourself with the location of various controls and adjustments. Save this manual for future reference.

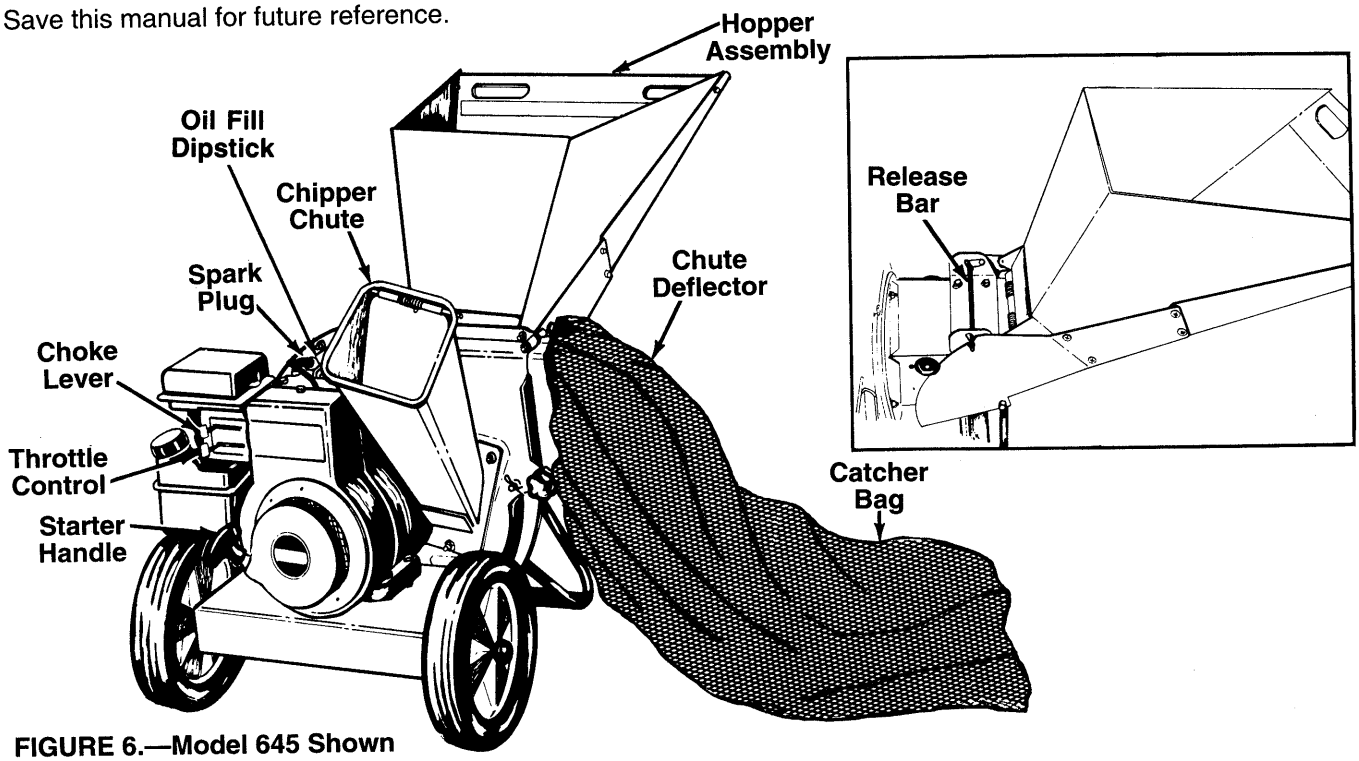


FIGURE 6.—Model 645 Shown

OPERATING CONTROLS (See figure 6)

RELEASE BAR—Used to release the leaf ramp when raising or lowering.

CHOKE LEVER—Used to enrich the fuel mixture in the carburetor when starting a cold engine.

STARTER HANDLE—Used to manually start the engine.

THROTTLE CONTROL—Controls engine speed and stops the engine.

The operation of any shredder can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields. We recommend wide vision safety mask for over spectacles or standard safety glasses.

BEFORE STARTING

1. Place the shredder on a firm, level surface.
2. Service engine with gasoline and oil as instructed in the separate engine manual packed with your shredder.
3. Attach spark plug wire to spark plug.

NOTE: *Check the fuel level periodically to avoid running out of gasoline while operating the shredder. If the unit runs out of gas as it is shredding or chipping, it may be necessary to unclog the unit before it can be restarted. Refer to "Removing the Flail Screen" on page 8.*

TO START ENGINE

WARNING: Be sure no one other than the operator is standing near the shredder while starting or operating.

1. Place the throttle control lever in FAST position. See figure 7.
2. Move choke lever to CHOKE position (a warm engine may not require choking).
3. Tecumseh engines only: Prime engine as instructed in separate engine manual.
4. Grasp starter handle (see figure 8) and pull rope out slowly until engine reaches start of compression cycle (rope will pull slightly harder at this point). Let the rope rewind slowly.
5. Pull rope with a rapid, continuous, full arm stroke. Keep a firm grip on starter handle. Let rope rewind slowly. Do not let starter handle snap back against starter.
6. Repeat preceding instructions 4 and 5 until engine fires. When engine starts, move choke lever on engine halfway between CHOKE and RUN.

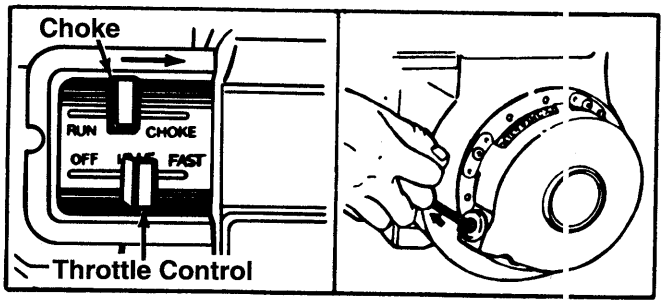


FIGURE 7.—Model 645 Shown

7. Move throttle control to IDLE position for a few minutes warm-up. Move choke lever to RUN position as engine warms up.

TO STOP ENGINE

1. Move throttle control lever to STOP position. See figure 7.
2. Disconnect spark plug wire and move away from spark plug to prevent accidental starting while equipment is unattended.

HOW TO USE YOUR SHREDDER

Do not attempt to shred or chip any material other than vegetation found in a normal yard (i.e., branches, leaves, twigs, etc.).

WARNING: The shredder discharges material with considerable velocity. Keep away from the area around the chute deflector. Always stop the engine and disconnect the spark plug wire when removing or attaching the bag, when changing containers or when removing the shredded material, wear safety glasses and gloves whenever using your shredder.

1. Leaves and small branches up to 1/2" diameter can be fed into the hopper when it is in the raised position. See figure 8. If it becomes necessary to push material into the shredder, use a small diameter stick—NOT YOUR HANDS. The stick cannot exceed 1/2" in diameter so it will be ground up if it gets into the impeller assembly.

WARNING: Do not put material larger than 1/2" in diameter into the hopper. Material up to a maximum of 3" in diameter material may be fed into the chipper chute. Do not attempt to shred or chip any material larger than 3" in diameter. Personal injury or damage to the machine could result.

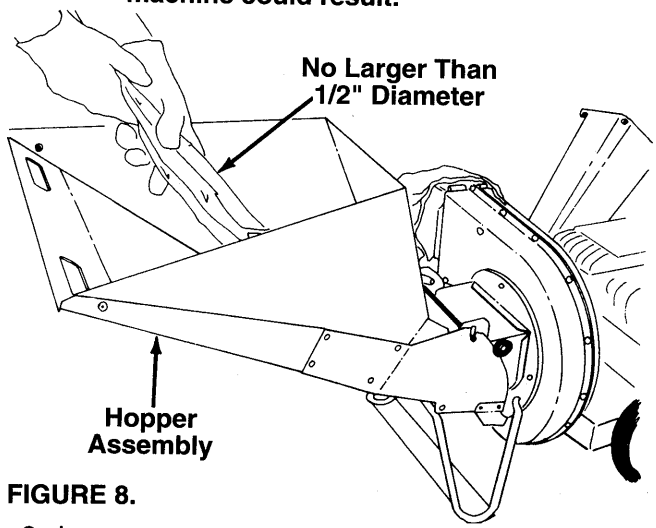


FIGURE 8.

2. Leaves and small twigs can be raked into the shredder when the hopper assembly is lowered to the ground. See figure 9. Small branches up to 1/2" diameter can also be fed into the shredder in this position. See figure 10.

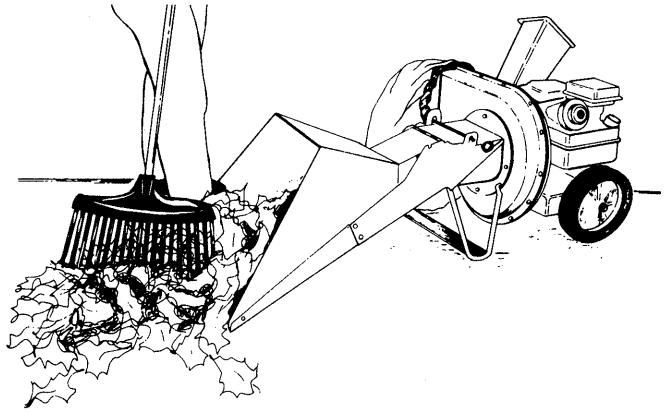


FIGURE 9.

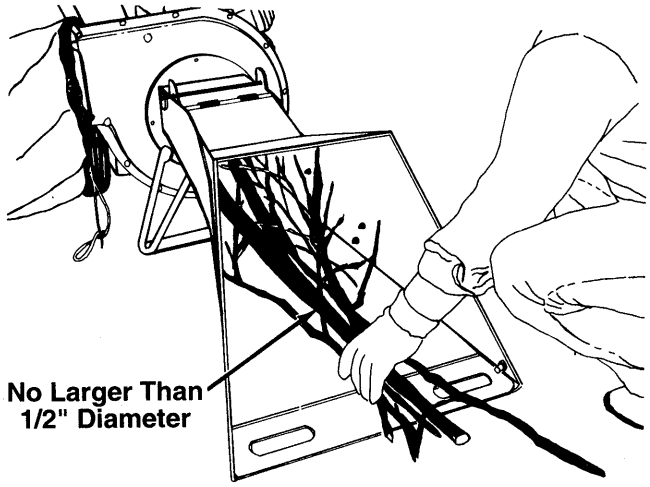


FIGURE 10.

To lower the hopper assembly, use one hand to grasp the handle at the top of the hopper assembly and lift slightly. Pull up on the release bar, and lower the hopper assembly to the ground. Release the bar. See figure 11.

3. Bulky material, such as stalks or heavy branches, **up to 3" in diameter** should be fed into the chipper chute. See figure 12.

WARNING: Make certain the chipper chute door is closed when not in use.

IMPORTANT: There is a flail screen located inside the housing in the discharge area. If the flail screen becomes clogged, remove and clean as instructed in the Maintenance section on page 8.

For best performance, it is important to keep the shredding blade and the chipper blades sharp. Refer to Maintenance section, pages 8 and 9. If the composition of the material being discharged changes (becomes stringy, etc.) or if the rate at which the material is discharged slows down considerably, it is likely that the shredding blade and/or chipper blades are dull and need to be sharpened or replaced.

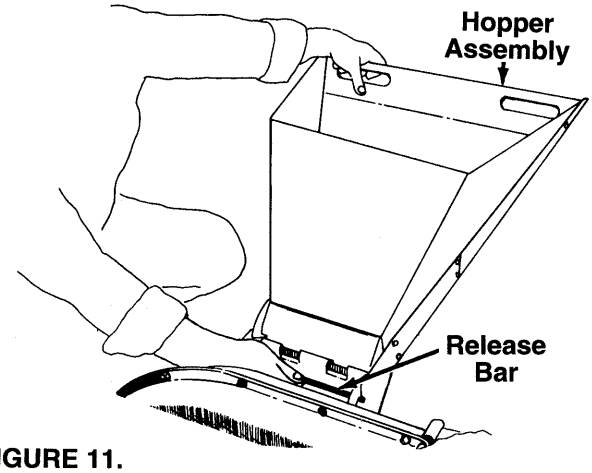


FIGURE 11.

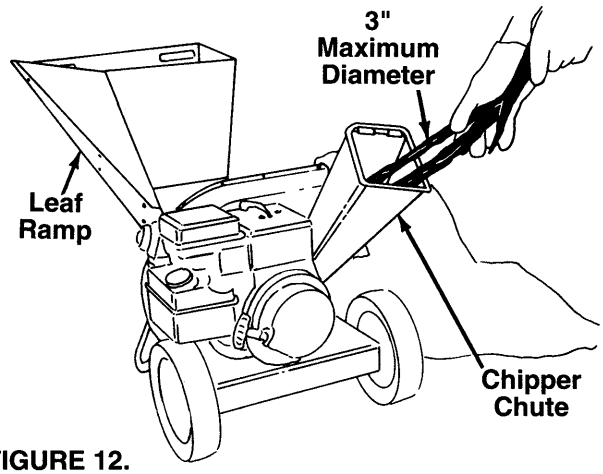


FIGURE 12.

MAINTENANCE

WARNING: Always stop engine and disconnect spark plug wire before cleaning, lubricating or performing any repairs or maintenance.

LUBRICATION

Lubricate the pivot points on the release bar, guide extention assembly, chute deflector and chipper chute once a season using a light oil.

ENGINE

Refer to the separate engine manual for engine maintenance instructions.

Maintain **engine oil** as instructed in the separate engine manual packed with your unit. Read and follow instructions carefully.

Service **air cleaner** every 25 hours under normal conditions. Clean every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicates that the air cleaner should be serviced. To service the air cleaner, refer to the separate engine manual packed with your unit.

The **spark plug** should be cleaned and the gap reset once a season. Spark plug replacement is recom-

mended at the start of each season; check engine manual for correct plug type and gap specifications.

Clean the engine regularly with a cloth or brush. Keep the cooling system (blower housing area) clean to permit proper air circulation which is essential to engine performance and life. Be certain to remove all dirt and combustible debris from muffer area.

CLEANING

The shredder may be cleaned by running water from a hose through the hopper assembly and chipper chute with the engine running. Allow the shredder to dry thoroughly.

Wash the bag periodically with water. Allow to dry thoroughly in the shade. Do not use heat.

REMOVING THE FLAIL SCREEN

If the discharge area becomes clogged, remove the flail screen and clean area as follows.

1. Stop the engine, make certain the shredder has come to a complete stop and disconnect spark plug wire from the spark plug before unclogging the chute.
2. Loosen the two hand knobs on each side of the chute deflector. Lift the chute deflector up, and tie it out of the way.
3. Remove two hairpin clips from the clevis pins which extend through the housing. Remove the clevis pins. Lift the flail screen from inside the housing. See figure 13.
4. Clean the screen by scraping or washing with water. Reinstall the screen.

NOTE: *Be certain to reassemble the flail screen with the curved side down as shown in figure 13.*

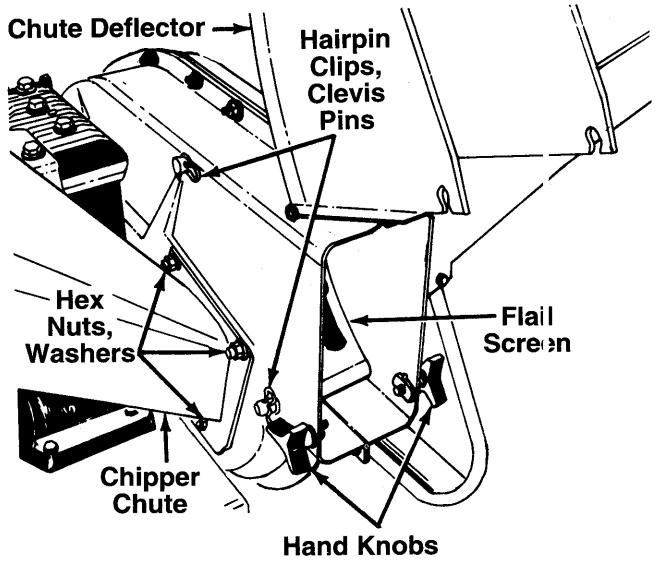


FIGURE 13.

SHARPENING OR REPLACING CHIPPER BLADES

1. Disconnect spark plug wire and move it away from spark plug.
2. Remove the flail screen as instructed in previous section.
3. Remove the chipper chute by removing three hex nuts and washers. A 1/2" wrench is required. See figure 13.

NOTE: *When reassembling, the cupped washer goes on the bottom of the chipper chute with the cupped side against the chute.*

4. Rotate the impeller assembly by hand until you locate one of the chipper blades in the chipper chute opening. Remove the blade, using a 3/16" allen wrench on the outside of the blade and 1/2" wrench on the impeller assembly (inside the housing). See figure 14.
5. Remove the other blade in the same manner.

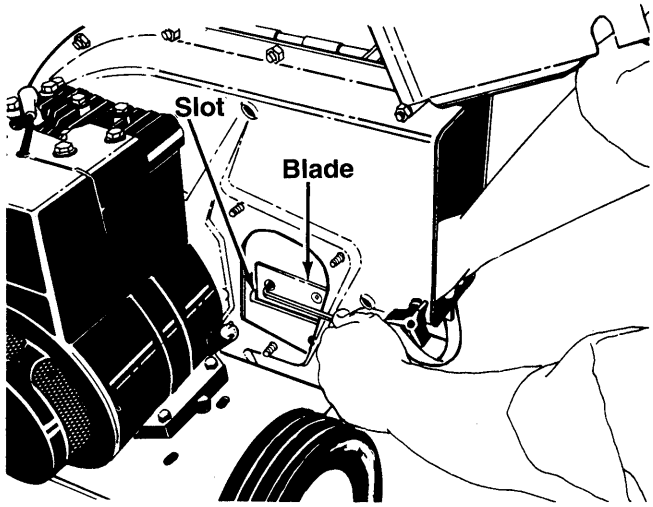


FIGURE 14.

Replace or sharpen blades. If sharpening, make certain to remove an equal amount from each blade. Reassemble in reverse order.

Make certain blades are reassembled with the sharp edge facing the direction shown in figure 14 (sharp edge is assembled toward the slotted opening in the impeller assembly).

SHARPENING OR REPLACING SHREDDING BLADE

The shredding blade may be removed for sharpening or replacement as follows.

1. Disconnect spark plug wire and move it away from spark plug.
2. Lower the hopper assembly. Block up the housing. See figure 15.
3. Remove the six hex lock nuts and lock washers from the housing weld bolts using a 1/2" wrench. Separate the shredder into two halves.
4. Remove the back-up plate.

NOTE: *When reassembling, make certain the opening on the back-up plate is toward the bottom of the unit. The back-up plate may be reversed to provide a new cutting edge.*

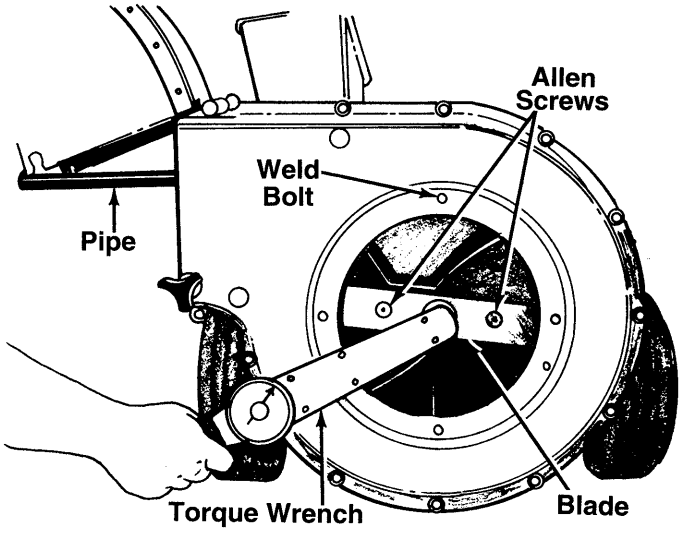


FIGURE 15.

5. Loosen the two hand knobs and cupped washers which secure the chute deflector, and raise the chute deflector.
6. Keep the impeller assembly from turning by inserting a 1/2" or 3/4" diameter pipe through the flail screen, or remove the flail screen, and insert a piece of wood (2 x 4) into the chute opening.
7. **Models 242A645 and 242A648 only:** Remove the two outside screws on the blade, using a 3/16" allen wrench and a 1/2" wrench.
8. Remove the blade by removing the center bolt, lock washer and flat washer.

NOTE: *Use caution when removing the blade to avoid contacting the weld bolts on the housing.*

When sharpening the blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds and may cause damage to the unit.

The blade can be tested for balance by balancing it on a round shaft screwdriver or nail. Remove metal from the heavy side until it is balanced evenly. See figure 16.

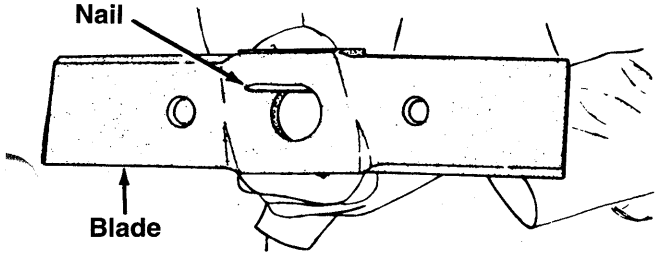


FIGURE 16.

When reassembling the blade, tighten to between 550 and 650 inch pounds, or lacking torque wrench, tighten securely.

FLAILS

The flails, located inside the housing, may be reversed when they become dull. It is suggested that this procedure be performed by your nearest authorized dealer.

CARBURETOR ADJUSTMENT

WARNING: If any adjustments are made to the engine while the engine is running (e.g. carburetor), keep clear of all moving parts. Be careful of heated surfaces and muffler.

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude or load.

NOTE: *A DIRTY AIR CLEANER WILL CAUSE ENGINE TO RUN ROUGH. BE CERTAIN AIR CLEANER IS CLEAN AND ATTACHED TO THE CARBURETOR BEFORE ADJUSTING CARBURETOR.*

Do not make unnecessary adjustments. Factory settings are satisfactory for most applications and conditions. If adjustment is needed, refer to the separate engine manual packed with your shredder.

OFF-SEASON STORAGE

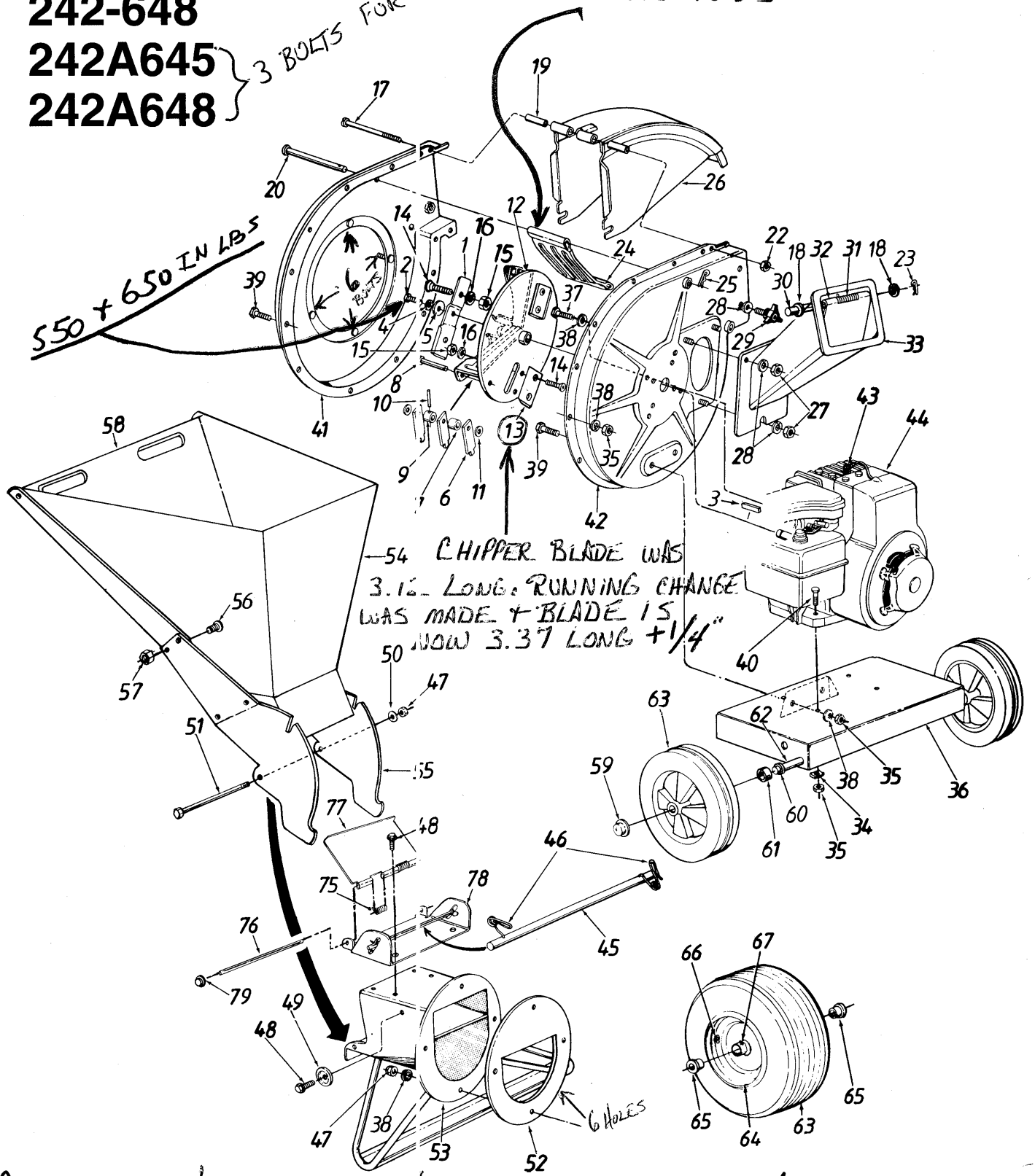
The following steps should be taken to prepare your shredder for storage.

1. Clean and lubricate the shredder thoroughly as described in the lubrication instructions.
2. Refer to engine manual for correct engine storage instructions.
3. If storing in an unventilated or metal storage shed, coat metal parts with a light oil or silicone to prevent rust.
4. Store in a dry, clean area. Do not store next to corrosive materials, such as fertilizer.

242-645
242-648
242A645
242A648

3 BOLTS FOR BLADE

IMPELLER PULLER
TAPERED SHAFT
710-1263



ARNOLD HAS A 5.5 CU. FT BAG AVAILABLE
SB-6 IS THE PART NO. 746-0430

242-645, 242-648, 242A645, 242A648

PARTS LIST FOR SHREDDERS

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	742-0571	N	Blade† 3 HOLE BLADE	40	710-0380		Hex Bolt 5/16-18 x 1.75" Lg.*
	13431		Blade††	41	681-0004	N	Flail Housing Ass'y.—L.H.
2	710-0818		Hex Bolt 3/8-24 x 2.0" Lg. (Gr. 8)	42	781-0474A	N	Flail Housing Ass'y.—R.H.
3	714-0114		Sq. Key 1/4 x 2.0" Lg.	43	735-0639		Spark Plug Boot (Optional)
4	736-0217		L-Wash. 3/8" I.D. H.D.	44	—		Engine
5	736-0247		Fl-Wash. .406" I.D. x 1.25" O.D. Hdn.	45	747-0531A		Release Bar
				46	732-0546		Torsion Spring 1.06" Lg.
6	11459B		Flail	47	712-0429		Elastic Lock Nut 5/16-18 Thd.
7	711-0564		Flail Spacer	48	710-0601		Hex Wash. Hd. Self-Tap Scr. 5/16-18 x .75" Lg.
8	711-0833A		Clevis Pin .496" Dia.				
9	711-0834		Flail Spacer w/.160" Dia. Hole	49	11480		Stop Washer
10	715-0249		Spring Roll Pin 1.12" Lg.	50	736-0264		Fl-Wash. 5/16" I.D.
11	736-0192		Fl-Wash. .531" I.D. x .94" O.D.	51	710-0542		Hex Bolt 5/16-18 x 8.38" Lg.
12	681-0002		Impeller Ass'y.† Keyed	52	781-0487B	N	Back-Up Plate
	781-0484		Impeller Ass'y.†† Tapered	53	16522B	N/638	Inlet Guide Ass'y.
13	781-0490		Chipper Blade	54	781-0494		Pivot Hopper Hood
14	710-1054		Flat Hd. Scr. 5/16-24 x .75" Lg.	55	16524B		Upper Guide Ass'y.
15	712-0411		Hex Top L-Nut 5/16-24 (Gr. 5)	56	710-0286		Truss Mach. Scr. 1/4-20 x .5"*
16	736-0119		L-Wash. 5/16" I.D.*	57	712-0107		Hex L-Nut 1/4-20 Thd.
17	710-0825		Hex Bolt 1/4-20 x 3.75" Lg.*	58	11461B	638	Upper Leaf Ramp Section
18	736-0142		Fl-Wash. .281" I.D. x .5" O.D.	59	726-0214		Push Cap 5/8" Dia. Rod
19	750-0793		Chute Hinge Spacer 1.66" Lg.	60	736-0187		Fl-Wash. .64" I.D. x 1.24"
20	711-0835		Clevis Pin .5" Dia. x 4.62" Lg.	61	750-0786		Spacer .64" I.D. x .38" Lg.
22	712-0291		Hex Ctr. L-Nut 1/4-20 Thd.	62	738-0814		Shredder Axle (645, 242A645)
23	714-3010		Cotter Pin		738-0813		Shredder Axle (648, 242A648)
24	781-0457		Shredder Screen	63	734-1600		Wheel Ass'y. Comp. (645, 242A645)
25	714-0149B		Internal Cotter Pin 3/8" Dia.				
26	781-0480		Chute Deflector Ass'y.		734-1597		Wheel Ass'y. Comp. (648, 242A648)
27	712-3010		Hex Nut 5/16-18 Thd. (Gr. 5)				
28	736-0242		Bell-Wash. .345" I.D. x .88"		734-1598		Tire Only (648, 242A648)
29	720-0170		Hand Knob	64	734-1455		Rim Only (648, 242A648)
30	747-0744A		Chipper Door Rod	65	741-0487		Flange Bearing .632" I.D. (648, 242A648)
31	732-0542		Torsion Spring 1.14" Lg.				
32	781-0489		Chipper Door	66	734-0255		Air Valve (648, 242A648)
33	781-0475		Chipper Chute Ass'y. NO DOOR	67	737-0280		Grease Fitting (648, 242A648)
34	736-0170		Spec. L-Wash. 5/16" I.D.	75	732-0629		Torsion Spring
35	712-3010		Hex Nut 5/16-18 Thd. (Gr. 5)	76	747-0747		Hopper Door Rod
36	781-0510	638	Shredder Frame	77	781-0492		Hopper-Pivot Door
37	710-0157		Hex Bolt 5/16-24 x .75" Lg.	78	781-0493		Hopper Lockout Brkt.
38	736-0119		L-Wash. 5/16" I.D.*	79	726-0106		Cap Speed Nut 1/4" Rod
39	710-3008		Hex Bolt 5/16-18 x .75" Lg. (Gr. 5)	—	764-0199A		Bag (Not Shown) 2.5 BU. CAPACITY
				—	723-0400		Safety Glasses (Not Shown)

†Models 242A645 and 242A648 only.
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*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

NOTE: The engine is not under warranty by the shredder manufacturer. . .If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines–Gasoline."

CODE: N notates a **new part** (not previously existing). A three digit number is the **color code**. Specify color code as shown below if color or finish is important when ordering parts. [i.e., 638 for Red Finish].

Color Codes

456—Radiant Tangerine	637—Black
460—Green Flake	638—Red
483—Charcoal Gray	640—Green
498—Yellow	646—CM Blue
499—Beige	657—Teal
629—Silver Flake	

TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Engine fails to start	1. Fuel tank empty, or stale fuel. 2. Spark plug wire disconnected. 3. Faulty spark plug.	1. Fill tank with clean, fresh fuel. 2. Connect wire to spark plug. 3. Clean, adjust gap or replace.
Loss of power; operation erratic	1. Spark plug wire loose. 2. Unit running on CHOKE. 3. Blocked fuel line or stale fuel. 4. Water or dirt in fuel system. 5. Carburetor out of adjustment. 6. Dirty air cleaner.	1. Connect and tighten spark plug wire. 2. Move choke lever to OFF position. 3. Clean fuel line; fill tank with clean fresh gasoline. 4. Disconnect fuel line at carburetor to drain fuel tank. Refill with fresh fuel. 5. Adjust carburetor.† 6. Service air cleaner.†
Engine overheats	1. Carburetor not adjusted properly. 2. Engine oil level low.	1. Adjust carburetor.† 2. Fill crankcase with proper oil.
Too much vibration	Loose parts or damaged impeller.	Stop engine immediately and disconnect spark plug wire. Tighten all bolts and nuts. Make all necessary repairs. If vibration continues, have unit serviced by an authorized service dealer.
Unit does not discharge	1. Discharge chute clogged. 2. Foreign object lodged in impeller.	1. Stop engine immediately and disconnect spark plug wire. Clean flail screen and inside of housing. See Maintenance section of this manual. 2. Stop engine immediately and disconnect spark plug wire. Remove lodged object.
Rate of discharge slows considerably or composition of discharged material changes	Shredding blade and/or chipper blades dull.	Sharpen or replace shredding and chipper blades.

†Refer to the engine manual packed with your unit.
NOTE: For repairs beyond the minor adjustments listed above, please contact your nearest authorized service dealer.

LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS–ATTENTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED.

FOR REPLACEMENT PARTS, CONTACT:
SERVICE DEPARTMENT • P.O. BOX 360900 • CLEVELAND, OHIO 44136